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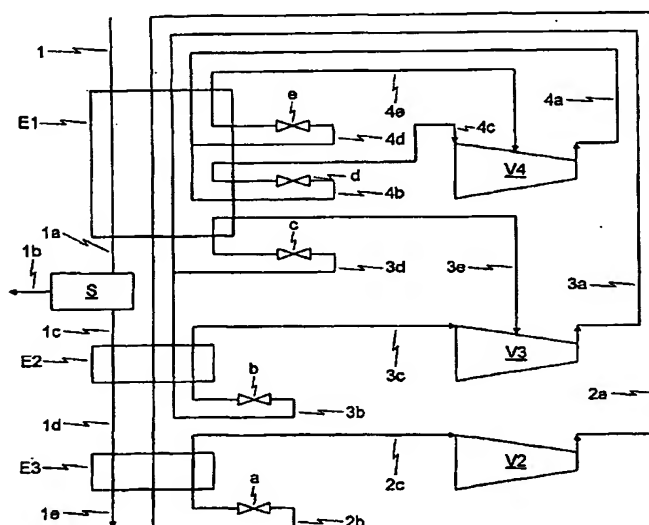
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F25B 9/02 (75) Inventors/Applicants (for US only): **BAUER, Heinz** [DE/DE]; Gartenstrasse 12, 82067 Ebenhausen (DE). **FRANKE, Hubert** [DE/DE]; Gistlstrasse 27, 82049 Pullach (DE). **SAPPER, Rainer** [DE/DE]; Zugspitzstrasse 9, 82335 Aufkirchen (DE). **SCHIER, Marc** [DE/DE]; Südliche Müncher Strasse 21, 82031 Grünwald (DE). **BÖLT, Manfred** [DE/DE]; Herbststrasse 33, 82194 Gröbenzell (DE). **PETTERSEN, Jostein** [NO/NO]; Johannes Minsaas vei 12, N-7053 Ranheim (NO). **FREDHEIM, Arne, Olav** [NO/NO]; Tingveien 21C, N-7046 Trondheim (NO). **PAUROLA, Pentti** [FI/NO]; Buseneset 26, N-4046 Hafslørd (NO).
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- (71) Applicants (for all designated States except US): **STATOIL ASA** [NO/NO]; I & K IR PAT, N-4035 Stavanger (NO). **LINDE AKTIENGESSELLSCHAFT** [DE/DE]; Abraham-Lincoln-Str. 21, 65189 Wiesbaden (DE).
- (71) Applicant (for MG only): **JACKSON, Robert** [GB/GB]; Frank B. Dehn & Co., 179 Queen Victoria Street, London EC4V 4EL (GB).
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(54) Title: **NATURAL GAS LIQUEFACTION PROCESS**



(57) Abstract: A method of liquefying a hydrocarbon-rich gas, wherein the gas (1) flows through a cascade of three refrigeration stages (E1, E2, E3), each stage comprising a refrigerant circuit and a compressor (V2, V3, V4), wherein at least part (3d) of the flow of refrigerant from the second circuit is used for the pre-cooling (E1) of the hydrocarbon rich gas in the first refrigeration stage. This balances the load on each of the compressors. By standardizing the drive units and compressors of the three coolant circuits, it is possible to maximize the attainable liquefaction capacity of the liquefaction process using tried-and-trusted drive units and compressors respectively. This method can be applied to mixed refrigerant cascades and circuits with a carbon dioxide pre-cooling circuit. This latter option has benefits for offshore use where large amounts of hydrocarbons are undesirable.

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